Written Statement of the
National Petrochemical & Refiners Association

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Petroleum Refineries: Will Record Profits Spur Investment in New Capacity?

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Mr. Chairman and members of the Subcommittee, thank you for the opportunity to appear today to discuss the current status and future prospects for the U.S. petroleum refining industry and the import of regulatory policy on domestic refining operations. My name is Bob Slaughter and I am President of NPRA, the National Petrochemical & Refiners Association. NPRA is a national trade association with 450 members, including those who own or operate virtually all U.S. refining capacity, and most U.S. petrochemical manufacturers.

RECOVERING FROM HURRICANES RITA AND KATRINA

Because of the recent events that have impacted our nation's Gulf Coast region, it seems both necessary and useful to report first on the status of energy infrastructure and production in the affected areas. The toll on victims and survivors of the storms as well as their families can perhaps never be fully quantified and NPRA offers our prayers and thoughts for all so tragically affected.

I will begin with the "upstream" operations, that is, production of crude oil and natural gas. Recovery and repair operations have been ongoing and definitive progress is being made. According to the Minerals Management Service (MMS), over 1 million barrels per day (b/d) of oil production and 5.6 billion cubic feet per day (bcf/d) of natural gas production remain shut-in as of October 14. This means that 67% of daily Gulf of Mexico (GOM) oil production and 56% of daily GOM gas production remains shut-in. Since August 26, 2005 57.6 million barrels of oil (10.5% of yearly GOM oil production) and 288.9 billion cubic feet of natural gas (7.9% of yearly GOM gas production) have been shut-in. While these figures are alarming and will have significant impacts, the progress in restoration of productive capacity should also be noted and appreciated. (See Attachment 1)

The refining industry was directly affected by the devastation. The industry faced unprecedented logistical, facility, and personnel complications with the impact of two major storms in rapid succession. Faced with shut-downs that at their peak on September 23rd accounted for nearly 5 million b/d of capacity, the refining industry reacted quickly and effectively. As of October 12, the Department of Energy reports that only a little over 1.6 million b/d remains offline. The dedicated employees of these facilities deserve most of the credit for the rapid return to service of so much capacity, as do their employers—the refining companies who in many cases have

provided for the shelter, safety and security of these workers and their families. Despite so great a loss of productive capacity in such a short time, it is important to note that the nation experienced only very isolated and short-lived transportation fuel shortages.

NPRA commends the federal government for acting quickly and decisively in the face of these supply outages. Several steps taken in the days and weeks following these storms helped refiners provide consumers with the products they need. The Administration released crude oil from the Strategic Petroleum Reserve (SPR) to assist refiners who were short crude supplies as a result of hurricane damage. NPRA applauds this appropriate utilization of the reserve in a time of crude-oil supply crisis. The decisive steps taken to judiciously use crude oil from the SPR during this emergency enabled several refineries, otherwise unaffected by the storms, to receive the crude oil required to keep the refineries in production.

NPRA also notes that the Environmental Protection Agency has provided temporary fuel waivers that make it easier to supply fuels to affected areas. The waivers pertain to both gasoline and diesel specifications. NPRA appreciates the efforts of EPA and commends the agency for its diligence in gathering the necessary information to protect both fuel supply and environmental concerns. The Department of Transportation also deserves recognition for temporarily lifting Jones Act requirements in order to allow non U.S. flagged vessels to transport much needed refined products from one U.S. port to another. These actions provided additional flexibility to the marketplace and have helped refiners to continue to meet demand.

The sheer magnitude of the total impacts of the storms dictates caution in any assessment of when the energy production, refining, distribution and related facilities will be back in service and conditions will return to normal. Clearly, our national energy infrastructure has suffered devastation from which it will take some time to fully recover.

CURRENT STATUS OF THE REFINED PRODUCT MARKETS: HIGH CRUDE PRICES; STRAINED CAPACITY

The most important factor affecting gasoline and distillate prices is the supply and price of crude oil. In June of this year the U.S. Federal Trade Commission released a landmark study titled: "Gasoline Price Changes: The Dynamic of Supply, Demand and Competition." To quote from the FTC's

findings: "Worldwide supply, demand, and competition for crude oil are the most important factors in the national average price of gasoline in the U.S." and "The world price of crude oil is the most important factor in the price of gasoline. Over the last 20 years, changes in crude oil prices have explained 85 percent of the changes in the price of gasoline in the U.S."

Crude prices have steadily increased since 2004, largely because of surprising levels of growth in oil demand in countries such as China and India, and in the United States as well. Actual demand growth for oil and oil products in these countries in 2004 exceeded the experts' predictions and has remained strong this year. As a result, world demand is bumping up against the worldwide ability to produce crude.

As shown in Attachment 2, gasoline costs closely track the cost of crude oil. Crude oil accounts for 55-60% of the price of gasoline seen at the service station. The cost of federal and state taxes adds another 19% to the cost of a finished gallon of gasoline. Therefore under current conditions, 74-79% of the total cost of a gallon of gasoline is pre-determined before the crude is delivered to the refiner for manufacture into gasoline. (See Attachment 3)

Limited refining capacity also affects the price of refined fuels. While U.S. refiners are producing huge volumes of products, continued strong demand has tightened supply. U.S. refiners often operate at extremely high utilization rates; rates approaching 98% at some times during the summer driving season. To put this in perspective, peak utilization rates for other manufacturers average about 82%. In spite of these efforts, gasoline demand continues to grow, with U.S. demand currently averaging approximately 9 million barrels per day. Domestic refineries produce about 90 percent of U.S. gasoline supply, while about 10 percent is imported. These imports account for over 20% of the refined product demand in the northeast U.S. This steadily increasing demand can only be met either by adding new domestic refinery capacity or by relying on more foreign gasoline imports. The need to add more domestic capacity – the option NPRA believes to be the prudent choice – is unfortunately often discouraged by other priorities.

OUR NATIONAL ENERGY POLICY SHOULD CONTINUE TO RELY ON MARKET FORCES

Some policymakers have suggested that the federal government should adopt price control mechanisms on refined products, sometimes at the

wholesale level, to combat the current rise in fuel prices. NPRA urges Congress to reject this advice. As previously noted, in the immediate aftermath of both Hurricanes Katrina and Rita, there were but a few reports of supply shortages or market distortion. Reliance on market forces provided appropriate market signals to help balance supply and demand even during these difficult times. Enactment of politically tempting but marketplace disrupting price controls is absolutely the wrong cure for the situation. President Reagan eliminated price controls on oil products immediately upon taking office in 1981. He was outspoken about the inefficiencies and added costs to consumers that resulted from America's ten-year experiment with energy price controls during the 1970s.

The energy price and allocation controls of the 1970s resulted in supply shortages in the form of long gas lines. Studies have shown that, although intended to reduce costs, controls actually resulted in increased costs and greater inconvenience for consumers. The benefits of market pricing became clear soon after the elimination of price and allocation controls in 1981. The U.S. Federal Trade Commission stated in an extensive study published this June that "Gasoline supply, demand and competition produced relatively low and stable annual average real U.S gasoline prices from 1984 until 2004, despite substantial increases in U.S. gasoline consumption" and "...For most of the past 20 years, real annual average retail gasoline process in the U.S., including taxes, have been lower than at any time since 1919." It is important to note that a "windfall profit tax" is merely another form of price control. Price caps and other forms of price regulation are no more effective in the 21st century than they were in the 1970s. Interference in market forces always creates inefficiencies in the marketplace and extra costs for consumers.

PRICE VOLATILITY

It is also important to keep in mind that cost of gasoline is a significant but limited fraction of the average consumer's transportation budget, constituting less than 20 percent of vehicle related expenditures (See Attachment 4). And while no one likes high gasoline prices, what is probably equally, if not more, irksome for consumers is gasoline price volatility.

Unpredictable gasoline prices make it hard for consumers to incorporate the cost of gasoline into their transportation budget. Indeed, data from the

Bureau of Labor statistics suggest that the American consumers are quite adept at managing the various tradeoffs in their transportation budget. For example, according to the Bureau of Labor Statistics consumer expenditure data show differences in vehicle related expenditures even for an average family of four versus families of 5 or more. Families of 5 or more, for example, spent more on gasoline on an annual basis but spent less on vehicle purchases, maintenance and repair.

Consumers make these sorts of tradeoffs in an atmosphere of stable gasoline prices. In the face of disasters of the magnitude of a Katrina and Rita, there are few short term fixes. However, in the long term, increased domestic refining capacity, coupled with increased regulatory and operational flexibility will promote greater price stability.

A REFINED PRODUCT RESERVE COULD REDUCE MARKET EFFICIENCY

NPRA does not support proposals calling for the institution of a strategic gasoline or other refined product reserve. This concept has been discussed and studied on numerous occasions and in each instance, rejected as unsound policy that would potentially disrupt the market. Filling a product reserve would attract supply from the already tight refined product market thereby putting upward pressure on price. Any supplies diverted from the market would have to be replaced, most likely by imports. Furthermore, complications arise both in storing refined products and in deciding which products to store. Gasoline, unlike crude oil, degrades over time and it would be necessary to refresh the stored product over time. The various fuel formulations in use throughout the nation, which are vital for states to use in meeting National Ambient Air Quality Standard obligations, raise the question of which type of fuel to store.

Other factors that would undoubtedly add complexity and uncertainty to an already complex and uncertain situation regarding strategic refined product storage include:

- the incorporation of the renewable fuels standards (RFS) for both ethanol and bio-diesel prescribed by the Energy Policy Act of 2005;
- the siting, permitting and construction of hundreds (perhaps thousands) of new above ground storage tanks;

- the problem of filling and maintaining the reserve while accommodating the current demand for refined products and the nation's need for imports.

Additionally, the reserve would add additional pressure to both the refining and transportation infrastructure at a time when the nation's energy systems are strained. The reality is that actual supply shortages have not occurred on any great scale. Even in the aftermath of Hurricanes Katrina and Rita, supply shortages were isolated and quickly remedied.

Finally, The California Energy Commission (CEC) thoroughly investigated the efficacy of a refined product reserve and concluded:

"The Governor and Legislature should not proceed with the strategic fuel reserve concept evaluated by the Commission. The Commission found that a strategic fuel reserve could have several unintended consequences, which could limit its effectiveness as a tool to moderate gasoline price spikes and could reduce the total supply of gasoline to the state."

Other studies of refined product reserve proposals over the past 30 years have reached similar conclusions.

REFINERS HAVE OVERCOME HURDLES TO ADD CAPACITY; SOME NEW CAPACITY PROJECTS HAVE ALREADY BEEN ANNOUNCED

Domestic refining capacity is a scarce asset. There are currently 148 U.S. refineries owned by 54 companies in 33 states, with total crude oil processing capacity of roughly 17.1 million barrels per day. In 1981, there were 325 refineries in the U.S. with a capacity of 18.6 million barrels per day. Thus, while U.S. demand for gasoline has increased over 20% in the last twenty years, U.S. refining capacity has decreased by 10%. No new refinery has been built in the United States since 1976, and it will be difficult to change this situation. Economic, public policy and political considerations, including siting costs, environmental requirements, a history of low refining industry profitability and, significantly, "not in my backyard" (NIMBY) public attitudes present barriers to capacity expansion projects. Despite these hurdles, the industry has made substantial efforts and investment to keep pace with demand, resulting in expansions of 2.1 million b/d of capacity over the past eleven years at existing sites.

Refining is a cyclical industry, with high and low periods. In the ten-year period 1993-2002, average return on investment in the refining industry was only about 5.5%. This is less than half of the industrials average return of 12.7% for the same period. After a recent economic assessment of the refining sector, Oklahoma Secretary of Energy David Fleischaker put it simply, "People aren't going to invest in a 5 to 7 percent rate of return when money costs you 8 percent…Unfortunately, bankers aren't looking for welcome mats. They're looking for high rates of return."

The environmental landscape affects the economics of the refining sector in two ways: by making changes in the products refiners produce, and by limiting changes refiners can make in our actual operations. The American Petroleum Institute (API) estimates that refining accounted for about 53% of the petroleum industry's stated environmental expenditures of $98 billion (in 2004 dollars) between 1992 and 2001. These significant, mandatory, capital expenditures divert funds that might otherwise be used to expand capacity. NPRA appreciates and supports the importance of clean fuels regulations, but it is equally important to recognize the impact they may have on fuel supply, and to plan prudently their implementation. The enactment of stringent and overlapping environmental policies without regard for the effect on the refining industry has negatively impacted investment in additional domestic capacity.

Another impediment to new refinery investment has been the so-called not-in-my-back-yard (NIMBY) syndrome. Often the construction of new facilities, or the expansion of existing ones, encounters local opposition. Indeed, when the media recently began to question why so much refining capacity is concentrated on the Gulf Coast, the answer included not only access to infrastructure and supply, but also community acceptance of the refining industry. To say the least, this acceptance is not typical of many other regions of the country where product demand is quite high.

Despite these undeniable realities, the domestic refining industry has increased capacity over the past eleven years. U.S. refining capacity on January 1, 1994 stood at 15.0 million b/d and at 17.1 million b/d on January 1, 2005. This increase of 2.1 million b/d represents an aggregate growth of 14 percent or, in simpler terms, the addition of a larger than average (190,000 b/d) refinery each year. Recently announced capacity expansions also demonstrate refiners continuing efforts to meet growing demand.

Valero, recently announced capital expenditure plans that include investments of about $5 billion dollars resulting in over 400,000 b/d of new capacity. Motiva Enterprises is considering significant capacity increases at one or more U.S. refineries. ExxonMobil's Baytown refinery is currently expanding by 75,000 b/d. Additionally, Marathon Ashland Petroleum has announced an expansion of about 26,000 barrels a day at a facility located in Detroit.

In addition to capacity expansion, several Gulf Coast refiners have made investments to enhance the ability of their refineries to handle less expensive, high-sulfur (or "sour") crudes. These investments expand the total pool of crude input available to refiners and allow for an increased volume of finished product for consumers.

These efforts, and the significant capital required to back them, demonstrate the commitment of refiners to meeting consumer needs. With the increased returns on refining operations in the past two years, it is very possible that further investment in refining will now occur. Unfortunately, it will still be difficult for the industry to keep pace with increasing U.S. demand for gasoline.

REFINERS FACE A BLIZZARD OF REGULATORY REQUIREMENTS AFFECTING BOTH FACILITIES AND PRODUCTS

Refiners are addressing current supply challenges and working hard to supply sufficient volumes of gasoline and other petroleum products to the public. Refineries have been running at very high levels, producing gasoline and distillate. However, it is difficult to sustain such high rates for long periods.

In addition to coping with higher fuel costs and growing demand, refiners are implementing significant transitions in major gasoline markets. Nationwide, the amount of sulfur in gasoline will be reduced to an average of 30 parts per million (ppm) effective January 1, 2006, giving refiners an additional challenge in both the manufacture and distribution of fuel.

Equally significant, California, New York and Connecticut bans on use of MTBE are in effect. Other state bans such as those in New Jersey, Delaware and New Hampshire will be effective in the next several years. This is a

major change affecting one-sixth of the nation's gasoline market. MTBE use as an oxygenate in reformulated gasoline accounted for as much as 11% of RFG supply at its peak; substitution of ethanol for MTBE does not replace all of the volume lost by removing MTBE. (Ethanol's properties generally cause it to replace only about 50% of the volume lost when MTBE is removed.) This lost volume must be supplied by additional gasoline or gasoline blendstocks. **Especially during a period of supply concerns it is in the nation's interest to be prudent in taking any action that affects MTBE use. That product still accounts for 1.6% of the nation's gasoline supply on average, but it provides a larger portion of gasoline supplies in areas with RFG requirements that are not subject to an MTBE ban.**

Refiners currently face the massive task of complying with fourteen new environmental regulatory programs with significant investment requirements, all in the same 2006 – 2012 timeframe. (See Attachment 5) In addition, many programs start soon. (See Attachment 6) For the most part, these regulations are required by the Clean Air Act. Some will require additional emission reductions at facilities and plants, while others will require further changes in clean fuel specifications. NPRA estimates that refiners are in the process of investing about $20 billion to sharply reduce the sulfur content of gasoline and both highway and off-road diesel. Refiners will face additional investment requirements to deal with limitations on ether use, as well as compliance costs for controls on Mobile Source Air Toxics and other limitations. These costs do not include the significant additional investments needed to comply with stationary source regulations that affect refineries.

Other potential environmental regulations on the horizon could force additional large investment requirements. They are: the challenges posed by the energy bill's mandated increased ethanol use, possible additional changes in diesel fuel content, and potential proliferation of new fuel specifications driven by the need for states to comply with the new eight-hour ozone NAAQS standard. The 8-hour standard could also result in more regulations affecting facilities such as refiners and petrochemical plants.

These are just some of the pending and potential air quality challenges that the industry faces. Refineries are also subject to extensive regulations under the Clean Water Act, Toxic Substances Control Act, Safe Drinking Water Act, Oil Pollution Act of 1990, Resource Conservation and Recovery Act,

Emergency Planning and Community Right-To-Know (EPCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and other federal statutes. The industry also complies with OSHA standards and many state statutes. A complete list of federal regulations impacting refineries is included with this statement. (See Attachment 7)

The high level of mandatory environmental expenditures in the current decade continues a trend established after the passage of the Clean Air Act Amendments in 1990. As previously mentioned, the American Petroleum Institute (API) estimates that refining accounted for about 53% of the petroleum industry's stated environmental expenditures of $98 billion (in 2004 dollars) between 1992 and 2001. The Wall Street Journal recently published an editorial that expressed that newspaper's take on the need for more reasonable environmental regulations to stimulate U.S. refining investment. (See Attachment 8)

Obviously, refiners face a daunting task in completing many changes to deliver the fuels that consumers and the nation's economy require. But they are succeeding. And regardless of recent press stories, we should remember that the cost of American petroleum products has long been low when compared to the price consumers in other large industrialized nations pay for those products. The Federal Trade Commission recently found that "Gasoline supply, demand and competition produced relatively low and stable annual average real U.S. gasoline prices from 1984 until 2004, despite substantial increases in U.S. gasoline consumption."

U. S. POLICY SHOULD ENCOURAGE ADDITIONAL DOMESTIC REFINING CAPACITY

As previously discussed, proposed capacity expansions can often become controversial and contentious at the state and local level, even when necessary to produce cleaner fuels pursuant to regulatory requirements. We hope that policymakers will recognize the importance of domestic refining capacity expansion to the successful implementation of the nation's environmental policies, especially clean fuels programs. The Administration's New Source Review reform program is a solid example of one policy modification that, while maintaining desired environmental protections, will provide an important tool to help add and update refining capacity in the U.S.

NPRA supports H.R. 3893, the Gasoline for America's Security Act of 2005 which was recently passed by the House of Representatives. The bill essentially makes the policy statement that increased petroleum product supplies and more domestic refining capacity are in the national interest and should be encouraged, rather than discouraged, by public policy. Passage of this bill by the House marks another stage of progress in America's growing realization that improvements in the nation's energy infrastructure and increased supplies of domestically-refined products are a crucial element in maintaining the nation's global economic leadership and national security.

NPRA also wants to recognize a provision in the recently enacted comprehensive energy legislation that will help encourage additional refining investment. This provision allows 50% expensing of the costs associated with expanding a refinery's output by more than 5%. The refiner must have a signed contract for the work by 1/1/08, and the equipment must be put in service by 1/1/12. Legislation recently introduced in both the Senate and the House would expand this provision to provide for 100% expensing of capacity expansions.

Common sense dictates that it is in our nation's best interest to manufacture the lion's share of the petroleum products required for U.S. consumption in domestic refineries and petrochemical plants. Nevertheless, we currently import more than 62% of the crude oil and oil products we consume. Reduced U.S. refining capacity clearly affects our supply of refined petroleum products and the flexibility of the supply system, particularly in times of unforeseen disruption or other stress. EIA currently predicts "substantial growth" in refining capacity only in the Middle East, Central and South America, and the Asia/Pacific region, not in the U.S. Less stringent environmental statutes, lower labor costs, and local support for projects all contribute to the attractiveness of foreign markets for refining investment.

A KEY GOVERNMENT ADVISORY PANEL HAS URGED GREATER SENSITIVITY TO FUEL SUPPLY IMPACTS

The National Petroleum Council (NPC) issued a landmark report on the state of the refining industry in 2000. Given the limited return on investment in the industry and the capital requirements of environmental regulations, the NPC urged policymakers to pay special attention to the timing and

sequencing of any changes in product specifications. Failing such action, the report cautioned that adverse fuel supply ramifications may result. Unfortunately, this warning has been widely disregarded. On June 22, 2004 Energy Secretary Abraham asked NPC to update and expand its refining study and a report was released last December. NPRA again urges policymakers to take action to implement NPC's study recommendations in order to deal with U.S. refining problems.

NPRA RECOMMENDATIONS TO ADD U.S. REFINING CAPACITY AND INCREASE FUTURE PRODUCT SUPPLY

- Make increasing the nation's supply of oil, oil products and natural gas a number one public policy priority. Now, and for many years in the past, increasing oil and gas supply has often been a secondary concern. Thus, oil and gas supply concerns have been secondary to whatever policy goal was more politically popular at the time. Enactment of the recent comprehensive Energy Bill is a first step to making the energy supply our nation depends upon a first priority of U.S. public policy.

- Remove barriers to increased supplies of domestic oil and gas resources. Recent criticism about the concentration of America's energy infrastructure in the western Gulf is misplaced. Refineries and other important onshore facilities have been welcome in this area but not in many other parts of the country. Policymakers have also restricted access to much-needed offshore oil and natural gas supplies in the eastern Gulf and off the shores of California and the East Coast. These areas must follow the example of Louisiana and many other states in sharing these energy resources with the rest of the nation because they are sorely needed.

- Resist tinkering with market forces when the supply/demand balance is tight. Market interference that may initially be politically popular leads to market inefficiencies and unnecessary costs. Policymakers must resist turning the clock backwards to the failed policies of the past. Experience with price constraints and allocation controls in the 1970s demonstrates the failure of price regulation, which adversely impacted both fuel supply and consumer cost.

- Expand the refining tax incentive provision in the Energy Act. Reduce the depreciation period for refining investments from 10 to five years in order to remove a current disincentive for refining investment. Consider

allowing expensing under the current language to take place as the investment is made rather than when the equipment is actually placed in service. Alternatively, the percentage expensed could be increased as per the original legislation introduced by Senator Hatch.

- Review permitting procedures for new refinery construction and refinery capacity additions. Seek ways to encourage state authorities to recognize the national interest in more domestic capacity.

- Keep a close eye on several upcoming regulatory programs that could have significant impacts on gasoline and diesel supply. They are:

  ® *Design and implementation of the credit trading program for the ethanol mandate(RFS) contained in the recent Energy Act. This mechanism is vital to increase the chance that this program can be implemented next year without additional gasoline supply disruption. Additional resources are needed within EPA to accomplish this key task.*

  ® *Implementation of the ultra low sulfur diesel highway diesel regulation. The refining industry has made large investments to meet the severe reductions in diesel sulfur that take effect next June. We remain concerned about the distribution system's ability to deliver this material at the required 15 ppm level at retail. If not resolved, these problems could affect America's critical diesel supply. Industry is working with EPA on this issue, but time left to solve this problem is growing short.*

  ® *Phase II of the MSAT (mobile source air toxics) rule for gasoline. Many refiners are concerned that this new regulation, which we expect next year, will be overly stringent and impact gasoline supply. We hope that EPA will develop a rule that protects the environment and avoids a reduction in gasoline supply.*

  ® *Implementation of the new 8-hour ozone NAAQS standard. The current implementation schedule determined by EPA has established ozone attainment deadlines for parts of the country*

that will be impossible to meet. EPA has to date not made changes that would provide realistic attainment dates for the areas. The result is that areas will be required to place sweeping new controls on both stationary and mobile sources, in a vain effort to attain the unattainable. The CAIR rule and ULSD diesel program will provide significant reductions to emissions within these areas once implemented. But they will not come soon enough to be considered unless the current unrealistic schedule is revised. If not, the result will be additional fuel and stationary source controls which will have an adverse impact on fuel supply and could actually reduce U.S. refining capacity. This issue needs immediate attention.

NPRA's members are dedicated to working cooperatively with government at all levels to resolve the current emergency conditions that result from Hurricanes Kristina and Rita and to maintain adequate fuel supplies to promote economic growth. But we feel obliged to remind policymakers that action must be taken to improve energy policy to help increase supply and strengthen the nation's refining infrastructure. We look forward to answering the Subcommittee's questions.